Department of Toxic Substances Control

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CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY
For
THE BKK LANDFILL CORPORATION
EPA ID Number CAD 067 786 749

APPLICATION FOR A HAZARDOUS WASTE FACILITY PERMIT
for the
CONTINUED OPERATION OF A LEACHATE TREATMENT PLANT
and
POST-CLOSURE PERMIT FOR THE CONTINUED CARE AND MAINTENANCE OF THE CLOSED CLASS I LANDFILL

The Department of Toxic Substances Control (DTSC) has completed the following Initial Study for this project in accordance with the California Environmental Quality Act (section 21000 et seq., California Public Resources Code) and implementing Guidelines (section 15000 et seq., Title 14, California Code of Regulations).

I. PROJECT INFORMATION

Project Name: BKK Class I Landfill
Hazardous Waste Facility Post-closure Permit

Site Location: BKK Landfill
2210 South Azusa Avenue
West Covina, California 91792

Contact Person: Christopher W. Hansen, P.E.
Address: 2210 South Azusa Avenue
West Covina, California 91792

Phone Number: (626) 965-0911

Project Description:

Pursuant to Chapter 6.5 of the California Health and Safety Code, BKK Landfill Corporation has submitted to the Department of Toxic Substances Control (Department) an application for approval of:

(1) a Hazardous Waste Facility Permit for the continued operation of a Leachate Treatment Plant (LTP); and

(2) a Post-Closure Permit for the continued care and maintenance of a closed Class I Landfill regulated unit.

Under the California Environmental Quality Act (CEQA), this application has been determined to be a project for which the Department has discretionary approval.

This project involves the following:

A. <u>Hazardous Waste Facility Permit (LTP)</u>

The LTP consists of the following regulated (permitted) units:

<u>Operational LTP</u>

* In fluent Equalization Tanks T-1, -2, -3, -4, -5 and -6.
* Chemical Adjustment Tanks T-9A and T-9B
* Aeration Tanks T-10, T-11, [T-10A and T-11A, future]
* Clarifier Tanks T-ME-5 and [T-ME-5A, future]
* Sludge Holding Tanks T-18 and T-19
* Effluent Holding Tanks T-16 and T-17
* Filter Presses ME-11 and ME-12
* Air Dryers ME-25 and [ME-25A, future]
* Roll-Off Bins
* Air Stripper In fluent Tank T-7
* Air Stripper Towers A and B (ME-1 and ME-2)
* Air stripper Effluent Tank T-8

Operational Landfill Tanks

* Nogales Sump
* GP200 Sump
* GP400 Sump
* North Access Road Sump 2
* North Access Road Sump 1
* Leachate Transfer Tanks A and B
* Flare Station Knockout Tank V-1
* Flare Station Knockout Tank V-2
* Flare Station Knockout Tank V-3
* V-1/V-2 Drop Tank
* 940 H7 Sump

In accordance with 22 CCR 66270.51(a), the LTP is currently operating under a permit which was slated to expire in 1992. The original (expiring) permit has been continued until the effective date of a new permit.

The operational LTP treats various hazardous and nonhazardous waste waters that derive from post-closure care and corrective action for the closed BKK Class I Landfill and management of an adjacent inactive BKK Class III Landfill.

The LTP, including an Air Stripper System, employs a biophysical (Bio) and powdered activated carbon treatment (PACT) technology for treatment of the In fluent liquids for reuse in irrigation and dust control programs. The In fluent consists of:

(1) leachate and landfill gas condensate from the closed BKK Class I Landfill and adjacent inactive BKK Class III Landfill;

(2) contaminated liquids from groundwater extraction wells;

(3) LTP recycled effluent and drainage water; and

(4) All other waste liquids derived from the buried wastes within the closed landfill.

B. POST CLOSURE PERMIT

This permit establishes site-specific requirements for post-closure monitoring, inspection and maintenance for the **Control Systems** included in the BKK Closure Plan of 1986; and includes permit conditions relative to the RCRA **Corrective Action** remedy selection activities of the Closed Class 1 Landfill hazardous waste disposal unit.

Control Systems Note: The applicable section of the BKK Class I Landfill Operation Plan is indicated in parenthesis following the specific Control System.

* Final Cover (3.3.1)
* Vegetation and Irrigation System (3.3.2)
* Liquid Management (3.3.3)
* Interior Gas Control System (3.3.4)
* Perimeter Gas Control (3.3.5)
* Landfill Gas Flares (3.3.6)
* Rainfall Run-on and Run-off Controls (3.3.7)
* Permanent Survey Monuments (3.3.8)
* Leachate Treatment Plant (3.3.9)

The compliance schedule for the LTP operation and Class I Landfill Post-Closure care is contained in the draft HWFPC Permit as Part V.D titled Compliance Schedule:

Corrective Action

Past operation of the closed Class I Landfill unit has resulted in groundwater contamination. This contamination is currently being addressed by BKK under a RCRA Section 3008(h) Consent Order with the USEPA. Among other tasks, the Order requires BKK to determine the nature and extent of contamination of air, soil and water at the BKK Facility, especially with respect to the closed Class I Landfill unit and contiguous areas; to identify existing potential migration pathways; to establish a comprehensive ongoing monitoring program to detect future releases of contaminants from the Facility; and to perform a Corrective Measures Study. A Site Assessment and Mitigation (SAM) Work Plan was established under the RCRA Section 3008 (h) Consent Order between USEPA and BKK.

The Corrective Measures Study being conducted will identify a selection for a final remedy for groundwater contamination. Corrective measures different from those now in place will require modification to the Post-Closure Permit. A separate CEQA determination will be made based on modification of the Post-Closure Permit. The substantive requirements of the Consent Order match the evaluation monitoring and corrective action requirements of Title 22 and 23 as amended by RCRA Subtitles C and D.

Site History

In 1963, the BKK Landfill opened on 130 acres. In 1971 it expanded to its present size of 583 acres. In 1972, combined disposal of both hazardous and nonhazardous wastes was initiated on 40 acres of the landfill designated as a Class I Landfill unit. In

1975, the Class I Landfill unit was expanded to 140 acres. Acceptance of significant quantities of liquid hazardous waste (in addition to solid hazardous and nonhazardous waste) occurred in 1976. The Class I Landfill unit ceased receipt of hazardous waste in 1984, except for asbestos, and of all wastes in 1987. The closing process included placement of a low permeability soil cap, with early estimates of 170 acres coverage. However, the aggregate acreage involved in the closed Class I landfill unit due the increased footprint of the cover is approximately 195 acres.

The Class I Landfill received hazardous and nonhazardous wastes from residences, apartments, and businesses from 1970 to 1987. From 1972 to 1984 it received hazardous wastes like oil wastes, drilling muds, pesticides, spent acids, and alkaline solutions.
The Class I Landfill unit was closed under a Closure Plan approved by the Department (the former Department of Health Services) and the United States Environmental Protection Agency (USEPA) in 1986. Closure was completed on March 15, 1989 and certification of closure was submitted to the Department on May 15, 1989. Approval of the closure certification was provided by the Department on June 12, 1991.

Agencies Having Jurisdiction Over the Project/ Types of Permits Required:

Leachate Treatment Plant

* *Hazardous Waste Facility Permit, BKK Landfill Leachate Treatment Plant, EPA ID Number CAD 067786749* (Department of Health Services, June 30, 1987)

* *Order No. 87-38, Waste Discharge Requirements for BKK Corporation, BKK Sanitary Landfill (BKK Leachate Treatment Plant)(File No. 86-76)* (California Regional Water Quality Control Board, March 23, 1987)

* *Monitoring and Reporting Program No. 6770 for BKK Corporation, BKK Sanitary Landfill (BKK Leachate Treatment Plant) (File No. 86-76)* (California Regional Water Quality Control Board, March 23, 1987)
* *Permit to Operate, BKK Corporation, Landfill Division Gnrl, ID 055449, Permit No. R-D94236 A/N 295520* (South Coast Air Quality Management District, March 7, 1996)

Class I Landfill

* *Interim Status Document, BKK Sanitary Landfill, Number CAD067786749* (Department of Health Services, December 22, 1980)

* *Stipulated Permanent Injunction, Case No. C 507317* (Superior Court of the State of California, County of Los Angeles, October 21, 1988)

* *Administrative Order on Consent, In the Matter of BKK Corporation, U.S. EPA Docket No. RCRA-09-89-0019, Proceeding under Section 3008(h) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6928(h)* (U.S. Environmental Protection Agency, March 31, 1989)

* *Monitoring and Reporting Program No. Cl 7737* (RWQCB)

* City of West Covina, CUP No. 71

II. DISCRETIONARY APPROVAL ACTION BEING CONSIDERED BY DTSC

□ Initial Permit Issuance	□ Removal Action Plan
□ Permit Renewal	□ Removal Action Workplan
□ Permit Modification	□ Interim Removal
□ Closure Plan	☒ Other (Specify)
□ Regulations	HWF Post-Closure Permit Issuance and HWF Permit Renewal (LTP)

Program/ Region Approving Project:

Contact Person: Philip B. Chandler
Address: California Environmental Protection Agency
Department of Toxic Substances Control
Southern California Permitting Branch
1011 North Grandview Avenue
Glendale, California 91201

Phone Number: 818/551-2961

III. ENVIRONMENTAL CONDITIONS POTENTIALLY AFFECTED

The box(es) checked below identify the specific environmental media found to be potentially affected by this project involving at least one impact that is "Potentially Significant Unless Mitigated" as determined in the ENVIRONMENTAL SETTING/IMPACT ANALYSIS section of this Initial Study.

☒ Earth	□ Risk of Upset	□ Aesthetics
☒ Air	□ Transportation/ Circulation	□ Cultural/ Paleontological Resources
☒ Surface and Groundwater	□ Public Services	□ Cumulative Effects
□ Plant Life	□ Energy	□ Population
□ Animal Life	□ Utilities	□ Housing
□ Land Use	□ Noise	□ Recreation
□ Natural Resources	☒ Public Health and Safety	□ None Identified

IV. ENVIRONMENTAL SETTING/ IMPACT ANALYSIS

The following pages provide a brief description of the physical environmental conditions which exist within the area affected by the proposed project and an analysis of whether or not those conditions will be potentially impacted by the proposed project. Preparation of the Environmental Setting and Impact Analysis sections follows guidance provided in DTSC's Workbook For Conducting Initial Studies Under the California Environmental Quality Act (CEQA) [Workbook]. A list of references used to support the following discussion and analysis are contained in Attachment A and are referenced within each section below.

Mitigation measures which are made a part of the project (e.g: permit condition) or which are required under a separate Mitigation Monitoring Plan which either avoid or reduce impacts to a level of insignificance are identified in the analysis within each section. A summary of the potential environmental impacts and mitigation measures is contained in Table 1.

TABLE 1

Summary of Potential Environmental Impacts and Mitigation Measures

Potential Impact:		Section 1. EARTH; Potential for excessive drying and cracking of the landfill cover.
Mitigation Measures:	#2)	In order to avoid impacts to the final cover, the Permittee shall maintain protective vegetation which shall be selected such that the root systems of the vegetation do not penetrate through or otherwise degrade or diminish the integrity of the closed Class I Landfill unit cover (i.e. cracking of the landfill cap). Department will review and approve the selection of the final protective vegetative cover.
	#4)	The protective vegetation over the closed Class I landfill unit during the post-closure care period must minimize desiccation, cracking, and erosion by wind and rain of the final cover. The proponent shall establish adequate monitoring protocols as approved by the Department to assure the vegetative cover achieves minimization of desiccation, cracking, and erosion of the final cover. The proponent shall submit reports on the effectiveness of the monitoring protocols as determined by the Department.
Potential Impact:		Section 2. AIR; Potential for airborne vinyl chloride gas migration undetected off-site.
Mitigation Measures:	#1)	Additional vinyl chloride air emission monitoring stations will be established at: Nogales End (Sampling Site #3) and Nogales Street, north of Amar Road (Sampling Site #11), Microwave Tower (Sampling Site #1) and Azusa Spillway (Sampling Site #2).
	#2)	See description above.
	#4)	See description above.
Potential Impact:		Section 14. Public Health and Safety; Potential impacts to public safety from sediment deposition and run-off on neighboring streets.
Mitigation Measure:	#3)	Within one hundred twenty (120) calendar days after the effective date of the Permit, the proponent shall clean and monitor accumulations in debris basins monthly or more often as determined by Department to preclude or minimize run-off and sediment deposition on neighboring streets. The proponent shall submit reports of the cleanup and monitoring which shall be submitted per Part V.D of the Permit.

Description of Environmental Setting:

The closed BKK Class I Landfill unit is located within the BKK Facility in the City limits of West Covina, Los Angeles County (see maps, Figures 1 and 2; area map and site plot plan map, respectively). The Facility comprises 583 total acres of which approximately 195 acres have been used for the closed BKK Class I landfill and 0.55 acres for the Leachate Treatment Plant (LTP). The BKK Class I Landfill unit, which formerly occupied bedrock canyons in the San Jose Hills, has been closed since 1989. During closure, the landfill was capped with clayey material to a specified low permeability. Also during closure a vegetative cover to control erosion, reduce dust, and enhance impermeability of the cap was required to cover the entire closed Class I Landfill unit. Currently, some portions of the closed Class I Landfill unit are lacking satisfactory vegetative cover exposing various bare areas of the clay cover.

Puente Creek, an ephemeral stream that discharged from the canyons before the landfill was constructed has been controlled by engineered structures such as drainage control basins, dewatering programs and public and private storm drain systems.

The three decks covering the closed Class I landfill are uniformly graded so that sheet flow drains towards inlet structures which carry the run-off to retention basins designed to accommodate the 100-year storm run-off.

The Facility is located within a seismically active area of Southern California and the San Jose fault is located within one mile. Seismicity of the region and the site was evaluated by Dames and Moore in early 1991. Their analysis of slope stability concluded that, while some earthquake-related cracks or distress could occur in the landfill cover, the landfill itself would not undergo appreciable distress. BKK's has indicated that its experience at the site with regional earthquakes since closure in 1989 supports this evaluation.

Mapping, subsequently described in the 1997 RFI report, demonstrated significant faulting and fracturing in bedrock under the inactive Class III Landfill unit. This mapping was performed in conjunction with exposures being made available during trenching, etc. Such exposures were not available with respect to the closed Class I Landfill unit. However, it is expected that such faults and fractures may also lie under the Class I Landfill unit. Moreover, some of the faults which were described in the RFI report trend underneath the operational LTP and the margin of the closed Class I Landfill.

The Permit requires BKK to have equipment, supplies, and personnel available to quickly respond to any expected earthquake damage. It also requires BKK to prepare a supplemental evaluation of potential earthquake-related damage.

References: Resource Conservation and Recovery Act Facility Investigation-Groundwater, BKK Landfill, West Covina, California, prepared by the Janes Network for BKK Corporation, dated October 31, 1997 [6 Volumes]

Final Closure Plan for the Hazardous Waste Management Area of the BKK Landfill, West Covina, prepared by Byron A. Stirrat and Associates, Inc. for BKK Corporation, dated July 21, 1986 [14 volumes]

Hazardous Waste Facility Permit, BKK Landfill Leachate Treatment Plant [EPA ID # CAD 067786749], dated June 30, 1987

Report, Slope Stability Analyses BKK Landfill, West Covina, California, by Dames and Moore for BKK Corporation, dated May 14, 1991

Analysis of Potential Impacts:

Project activities involved with the approval of the draft combined Hazardous Waste Facility and Post-closure Permit (Permit) may require installation of additional monitoring wells for continued monitoring of ground water to be located in areas such as along the Haul Road, West Entrance, Southeast, and South general areas of concern within the Facility. The West Entrance, Southeast, and South general areas of concern are near Amar Road while the Haul Road is near the center of the Facility. All other activities of the Permit are considered monitoring and reporting requirements and are detailed in a comprehensive compliance schedule included as Part V.D. of the Permit. The LTP Permit Renewal project activities involve the continued operation of the existing LTP and does not involve changes or additions to the existing LTP which has been implemented to treat leachate generated at the Facility.

The site does not contain unique geologic or physical features. During closure the landfill was capped with a minimum of 5 feet of clayey material to a specified low permeability. Final slopes comply with the Closure Plan specifications. As a condition of the Closure Plan, a vegetative cover was required. The vegetative cover is necessary to control erosion, reduce dust, and enhance impermeability of the cap and covers the entire cap surface. Site visits by DTSC staff have revealed that there are several areas of the cover which are exposed without vegetation. The existence of these exposed areas of the cover creates the potential for soil erosion by water or wind. This lack of vegetation may be the result of an absence of or an insufficient amount of water, type or variety of vegetation used as cover, and/or poor maintenance of watering equipment.

Cracking of the Class I landfill cover has been noted through City of West Covina inspection and noted in interagency reports during visits to the Facility. The proposed project has the potential for significant adverse impact to the cap if the cover drys and cracks excessively which could lead to emissions of landfill gas and allow percolation/infiltration of incident rainfall. The current monitoring of vegetative cover has been determined to be insufficient at current levels.

Based on mapping which shows the existence of faulting and fracturing in bedrock under the Class III Landfill unit, there exists the potential for surface rupture and even liquefaction related to the

Class I Landfill unit that may be greater than previously allowed. Moreover, some of the faults which were described in the RFI report trend underneath the operational LTP and the margin of the closed Class I Landfill.

The Permit contains conditions which require a workplan and report to evaluate seismicity and any faults which may affect the closed Class I Landfill and LTP using current information and data with respect to any hazards which may affect the integrity and effectiveness of the final cover of the closed Class I landfill unit, operational LTP, groundwater extraction and monitoring wells, leachate and gas extraction systems, gas, groundwater and leachate conveyance piping and tanks, and landfill slope and cover stability . It also contains conditions which requires additional financial assurance mechanism if DTSC determines that the report indicates that it is necessary to account for potential impact to the closed Class I Landfill and operational LTP.

The following specific mitigation measures will be imposed to mitigate the potentially significant earth impacts to a less than significant level (these specific mitigation measures are identified in the Permit, Part V.C):

Mitigation Measure #2: In order to avoid impacts to the final cover, the Permittee shall maintain protective vegetation which shall be selected such that the root systems of the vegetation do not penetrate through or otherwise degrade or diminish the integrity of the closed Class I landfill cover (i.e. cracking of the landfill cap).

Mitigation Measure #4: The protective vegetation over the closed Class I landfill unit during the post-closure care period must minimize desiccation, cracking, and erosion by wind and rain of the final cover. The proponent shall establish adequate monitoring protocols to assure the vegetative cover achieves minimization of desiccation, cracking, and erosion of the final cover.

Reference: Interagency Steering Committee (ISC) Inspection Report for June 26-27, 1996 Inspection of the BKK Landfill, West Covina, California, Prepared by Carmen Santos (USEPA/ISC Chair), May 9, 1997

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*

□ ☒ □ □

Environmental Setting:

Southern California's climate is classified as Mediterranean with warm, dry summers and mild, wet winters. Annual average temperatures in the region range from approximately 55°F to 74°F. The annual average rainfall is approximately fourteen inches, although it can vary widely from year to year. Prevailing daytime winds are generally sea breezes from the southwest during the winter months. Prevailing nighttime winds are north-northeast throughout the year. The average annual wind speed is about six miles per hour.

The BKK Facility is located in the City of West Covina and is located within the South Coast Air Basin (Basin) which is under the jurisdiction and responsibility of the South Coast Air Quality Management District (SCAQMD). The Basin is a nonattainment area exceeding National Ambient Air Quality Standards for ozone, carbon monoxide, nitrogen dioxide and inhalable particulates. The Basin is bordered by the San Gabriel Mountains to the north, the San Bernardino and San Jacinto Mountains to the east, the Santa Ana Mountains to the south, and the Pacific Ocean to the west. The mountains range in elevation from approximately 6,000 to 11,500 feet above sea level. The topography of the Basin is a major contributing factor to the observed air quality and air pollution levels. During the daytime, prevailing coastal winds blow inland (i.e., from west to east) and air masses become blocked by the surrounding mountain ranges. As a result, the restricted air flow makes the Basin highly susceptible to air pollutant accumulation.

In addition to having restricted horizontal air flow out of the Basin, vertical mixing is also restricted by inversion layers. Inversion layers are formed when a mass of warm dry air sets over cooler air on the ground. This layer can usually be detected by temperature sounding aloft. Since air temperatures normally decrease with elevation, the point where the temperature remains unchanged or rises will be the location of the base of the inversion. This layer is important in the study of air quality, since it acts as a lid and prevents vertical dispersion of pollutants from the air mass below. Pollutant concentrations will increase throughout an inversion episode due to the constant addition of pollutants from routine daily activities in the basin.

In the project area, daytime temperature inversions typically start out at 1,200 to 1,500 feet and increase throughout the day as the sun warms the ground, which in turn warms the surface layer air. As heating continues, the surface layer temperatures become equal to the temperature of the inversion base, allowing the inversion layer to lift. This can occur by mid- to late afternoon on hot summer days. Although inversion layers occur throughout all seasons of the year, summer inversions are the most critical with regard to air quality, as this is the season during which photochemical smog is most likely.

Gas emissions from the closed BKK Class I landfill are controlled by a clay cap that is at least five feet thick across the entire landfill and by a comprehensive landfill gas collection and destruction system. Various levels of emissions monitoring is required by permits from the SCAQMD. The SCAQMD issued Permits to Operate for both the landfill gas collection system and the landfill gas flares upon closure of the landfill in 1989. The LTP has been operating under DTSC, USEPA, LARWQCB

and SCAQMD permits since 1987. It is subject to the conditions of a permit to operate from the SCAQMD, which requires routing of all significant emissions derived from the influent to Flare Station 2 for destruction.

Additionally, the facility complies with SCAQMD approved Rule 1150.1 Compliance Plan (required for all active and inactive landfills in the Basin) which requires two ambient air monitoring stations (one monitoring station upwind and one downwind). These are identified as the Microwave Tower (Sampling Site 1) and Azusa Spillway (Sampling Site 2) stations, respectively.

References: BKK Corporation, Rule 1150.1 Quarterly Monitoring Report Class I-Class III (October-November-December 1997), prepared by RES Environmental Inc., submitted to the South Coast Air Quality District on February 13, 1998

Rule 1150.1 Compliance Plan for BKK Landfill Located at 2210 Azusa Ave., West Covina, California [Application 139439], approved by the South Coast Air Quality Monitoring District on July 11, 1994

Ambient Air Sampling Plan, BKK Landfill, West Covina, California, prepared by BKK Corporation, RES Environmental Inc., and ENVIRON Corporation for U.S. EPA, final approved version dated October 7, 1994

Analysis of Potential Impacts:

As discussed in section 3. Surface and Ground Water, Post-closure project activities may result in the installation of additional groundwater monitoring wells for continued monitoring of ground water. The installation of the any additional groundwater monitoring wells will result in insignificant air emissions from drilling equipment based on the facilities compliance with SCAQMD/SCAB air emission requirements. It is estimated that the installation of the additional ground water monitoring wells associated with this project would have a short term effect on the local air quality. The monitoring wells will be drilled using one drilling rig, drilling the wells one at a time over the course of 24 months. The proposed project activities associated with monitoring well drilling would be short term and temporary resulting in less than significant air emission impacts.

Currently, there are two air monitoring stations located at the site to monitor for vinyl chloride air emissions. The project involves the continued monitoring and reporting of vinyl chloride gas emissions at these two stations on a semi-annual basis. With only two monitoring stations (Microwave Tower and Azusa Spillway) currently required to record air emission levels of vinyl chloride gas there is the potential for this gas to migrate undetected off-site under certain conditions. The specific conditions which could cause this potential impact are: cracking of the cap, leakage at the extraction headers or other possible malfunction of the gas extraction system. The potential release and offsite migration could result in a detectable odor levels emanating from the site and ambient levels of vinyl chloride exceeding those acceptable with respect to health risk. Exceeding either of these thresholds would

constitute a significant impact. Therefore, the DTSC finds that the proposed project could have the potential for significant adverse air impacts unless mitigated.

BKK has implemented a gas extraction system at the closed Class I landfill to bring down the concentration of landfill gases, including vinyl chloride. The gas extraction system includes a backup system should there be a mechanical failure or loss of power. Should there be a power outage, BKK maintains two standby generators, each rated at a minimum of 210 Kw. These generators have been sized to accommodate the load. Failure of critical equipment is mitigated by maintaining spares on-site (for example, each flare station has a minimum of one blower and one flare unit installed on standby for immediate startup).

When the blowers are operated, the gas extraction headers are under negative pressure, i.e. vacuum. Therefore, if a break in the system were to occur while the system was operating, atmospheric air would be sucked into the headers rather than landfill gas being released from the header. The backup system and standby generators are in place to operate the system and preventing any breakage from being a source of emissions. If breakage were to occur and the system was to become non-operational, there would be no active gas stream. Passive emissions could be expected to begin occurring from many sources including header breaks but especially the cap.

Although BKK will clearly be aware of any catastrophic mechanical failure or loss of standby electrical generating capacity, increased ambient air monitoring will also serve as an additional alert to problems that might occur in conjunction with breaks in headers and branch lines, especially near extraction points and with respect to cap emissions.

Mitigation Measures #2 and #4 as discussed in section 1. Earth of this Initial Study address mitigation of the potential for adverse environmental impacts relating to cracking of the cap. In addition to these mitigation measures for cap maintenance and monitoring, the following mitigation measure will reduce the potential for adverse air impacts to a less than significant level:

Mitigation Measure #1: Additional vinyl chloride air emission monitoring stations will be established at: Nogales End (Sampling Site #3) and Nogales Street, north of Amar Road (Sampling Site #11); and Microwave Tower (Sampling Site #1) and Azusa Spillway (Sampling Site #2). The monitoring frequency at these sites shall be bimonthly and semiannually, respectively, or more frequently as determined by the DTSC.

References: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

2. Air (Workbook; page 13)

Ambient Air Sampling Plan, BKK Landfill, West Covina, California, prepared by BKK Corporation, RES Environmental Inc., and ENVIRON Corporation for U.S. EPA, final approved version dated October 7, 1994

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☒	☐	☐

Description of Environmental Setting:

Surface water

The closed Class I Landfill unit is situated atop a portion of the "headwater" drainage area of the former Puente Creek. The upper part of this creek and its tributaries have been covered by the previous landfilling operations. Prior to this landfilling operation, surface water drainage was primarily directed to the interior of the site with almost all incident water being discharged from the site through the former Puente Creek. The topography around the closed Class I Landfill unit has been extensively modified with grading and filling. The former Puente Creek exited the site approximately 2000 feet north from the intersection of Azusa and Amar Road. This creek drainage is now buried under several shopping malls directly south from the site, but emerges as a cement-lined surface drainage course south from Amar Road and through the neighborhoods to the southwest (see Figure 3). This cement-lined drainage ultimately feeds into the San Jose Creek which in turn connects to the San Gabriel River at Whittier Narrows.

Due to the extensive changes in the site topography that have occurred over the years of operation and through the closure process, surface run-on and run-off control facilities have been installed throughout the site. Run-on and run-off are directed away from the landfills and collected at perimeter drainage channels. Run-off is captured at three main artificial drainage courses located along the southeast perimeter of the closed Class I Landfill unit parallel to Nogales Street, between the closed Class I and inactive Class III Landfill units along the former site haul road, and along the western perimeter of the inactive Class III Landfill unit. The majority of the water is directed by surface channels and subdrains to three large detention basins located west from the site administration buildings. Drainage from these basins is directed to a single storm drain and off-site to the west and into the now engineered Puente Creek drainage. A small amount of surface water exits the east side of the site and is directed to a storm drain under Nogales Street.

Ground Water

Investigations that were part of the Site Assessment and Mitigation (SAM) Workplan under the RCRA Section 3008(h) Consent Order between the EPA and BKK show that the site is underlain by a single saturated zone that crosses two basic interconnected hydro geologic units: a surficial unit composed of alluvium, artificial fill and weathered bedrock; and a bedrock unit composed of conglomerate, upper, middle, and lower shales, and sandstone. Hydraulic conductivity is highly variable at the site. Lithostratigraphic units vary in composition from claystone to coarse sandstone and conglomerate. The large stratigraphic units referred to as the Sandstone and Lower Shale are in fact sequences of interbedded sandstone and shale and have been given names based on the predominant lithology of the unit. On a smaller scale such as the tested zones in boreholes or wells, hydraulic conductivity can be affected by interbedded strata,

cementation, fracturing, faulting, and degree of near-surface oxidization. This variability in hydraulic conductivity is one reason BKK has divided the site into 17 specific study areas**.**

Sources of ground water in the surficial deposits include bedrock seepage and groundwater flow along the now buried channel of Puente Creek. In general, groundwater elevations measured in bedrock appear to be approximately 10 feet higher than the elevations measured in the surficial deposits in the lower reaches of the Main Canyon near Azusa Avenue. Such upward gradients are common on the site only along the lower main canyon. In contrast, downward gradients are common elsewhere on the site, particularly on the ridge tops. Unconfined or water table conditions exist generally in the bedrock, with conditions becoming semi-confined with depth.

Depth to ground water across the site varies considerably due to the rugged topography which ranges from 19 feet to 200 feet. Water levels measured in bedrock generally mirror the original topographic contours of the site. Ground water drains slowly westward through the main canyon toward San Jose Creek, then to the San Gabriel Valley.

The San Gabriel Valley groundwater basin lies west of the site and the Puente Valley lies south of the site. Sand and gravel layers within the alluvium in these two valleys are the only recognized aquifers in the site region. The bedrock beneath the site is not considered to be a useful aquifer because it yields little water to wells and contains groundwater naturally poor in quality. A total of 13 active municipal water supply wells have been identified within a 3-mile radius of the site. The nearest of these wells is located 1.7 miles from the site boundary in the San Gabriel Valley.

Reference: Resource Conservation and Recovery Act Facility Investigation-Groundwater, BKK Landfill, West Covina, California, prepared by the Janes Network for BKK Corporation, dated October 31, 1997 [6 Volumes]

Analysis of Potential Impacts:

Surface water

All storm water discharge to the storm drains is covered under the Statewide General Industrial Stormwater Permit (General Permit) stormwater run-off at the closed Class I landfill which was enrolled in with the State Water Resources Control Board. This General Permit prescribes the chemical and physical constraints of the discharge waste water per day per discharge event resulting from rainfall run-off at the site. The Permit merely incorporates this pre-existing General Permit as a requirement.

Although site subdrains and surface water control systems are described in detail in the approved closure plan (1989) and the post-closure application (1998), no major changes are

anticipated, and neither the quantity nor quality of run-off water directed into the engineered-Puente Creek will change and there will be no significant impact from this project on surface water.

Ground Water

Leakage from the closed Class I Landfill unit has contaminated ground water under and adjoining it. Corrective Action with respect to ground water, which would consist of evaluating the nature and extent of groundwater and selecting a remedy, is being performed by the USEPA under a Consent Order with BKK. The USEPA has overseen the RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) and is in the process of selecting a groundwater remedy.

The proposed project includes post-closure care requirements which are related to ground water such as continued groundwater monitoring (sampling and chemical analysis as well as groundwater elevation measurement), continued groundwater extraction and treatment as required by the Stipulated Permanent Injunction (SPI) since 1988 (this pertains to a court action brought by the City of West Covina against BKK and the State of California), and installation of additional groundwater monitoring wells at specific locations on-site but outside of the waste prism. A Corrective Measures Study has been developed for approval by USEPA in compliance with the terms of the Section 3008(h) Order. Upon approval by USEPA, the responsibility for corrective action will be transferred to DTSC and implementation of the corrective measures will take place as part of a Class III permit modification requiring a separate CEQA determination.

The continued groundwater monitoring at existing monitoring wells will not result in any alterations to the local groundwater conditions. As part of the monitoring process, some waste water is generated by purging prior to sampling. This water is very limited in volume, generally less than 100 gallons per well and is placed in labeled drums or portable tanks located at each well. The contents of each drum or tank are removed and disposed of at the on-site leachate treatment plant.

Extraction of contaminated ground water has been on-going since 1988 under the SPI and must continue at specified locations regardless of the proposed project. No new ground water extraction is proposed as part of the proposed project and, therefore, localized alteration in the direction of flow of ground water is not anticipated.

Post-closure project activities may include installation of groundwater monitoring wells for continued monitoring of ground water. These groundwater monitoring wells may be located along the Haul Road, West Entrance, Southeast, and South general areas of concern within the Facility (see Figure 4). The West Entrance, Southeast, and South general areas of concern are near Amar Road while the Haul Road is near the center of the 583 acre BKK Facility.

Proper well construction is required under the proposed project as part of the Groundwater Quality Monitoring and System Plan (GWQMSP) and, in fact, have been part of the approved practices at the site since the RFI required by the USEPA. In addition to the normal requirements of selecting appropriate filter pack and screen size, annular seal, and grout, a conductor casing is utilized to preclude contamination from the upper part of a unit into the lower part or even across unit boundaries. This casing is generally a 10-inch diameter steel pipe which is installed across any upper horizons which are known to be contaminated, thereby sealing them off. The new monitoring well is drilled inside the casing and the seal and grout installed. The total amount of water removed during construction, development and sampling is negligible, estimated to be less than 1000 gallons per well, and would have no significant impact in terms of altering the groundwater flow regime or in reducing the groundwater resource. Therefore, the actions being required in the proposed project would have no impact on regional or sub-regional groundwater flow, and exceedingly minimal, if any, effect on the local groundwater regime underneath or adjacent to the closed Class I landfill.

The LTP Permit Renewal portion of the project activities involves approval for the continued operation of the existing LTP system and does not require changes or additions. The existing LTP system was implemented to treat leachate liquids generated at the facility site. The activities associated with the proposed project would not result in any potentially significant adverse impacts to either ground water or surface water.

Monitoring and reporting activities of the Permit are detailed in a comprehensive compliance schedule included as Part V.D. of the draft permit.

Reference: Resource Conservation and Recovery Act Facility Investigation-Groundwater, BKK Landfill, West Covina, California, prepared by the Janes Network for BKK Corporation, dated October 31, 1997 [6 Volumes]

3. Surface and Ground Water (Workbook; page 17)

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

Description of Environmental Setting:

The project site is located within the City limits of West Covina, Los Angeles County. The Facility, which includes the closed Class I Landfill and LTP units, is surrounded by urban development on three sides, and open land on the fourth. The BKK Facility has been at its current location since early 1963. The surface of the closed Class I Landfill unit is covered by a vegetative cover (as required by the previously approved Closure Plan of 1986), asphalt and buildings.

The surface of the inactive Class III Landfill unit (175 acres) is currently being graded for final cover and is effectively bare while the surface of the LTP unit (.55 acre) is covered by asphalt and concrete. The closed Class I Landfill unit (195 acre) has been re-vegetated with various hydroseed mixes. In 1997, the Fish and Wildlife Service determined, using 1990 and later aerial photographs, that the surface of the overall Facility (583 acres) was mostly disturbed and consisted of exotic herbaceous vegetation and bare ground. At the same time, the Fish and Wildlife Service noted that some sparse wetland vegetation, consisting of a thin strip of mulefat (Baccharis salifolia), occurs along the retention basin in the Puente creek stream course near Azusa Avenue. Areas of coastal sage and scrub (CSS) vegetation were noted within the 583 acre facility, mostly along the west and north portions of the site along slopes. CSS was noted to occur on the perimeter of the Facility, most commonly in the Galster Wilderness Park and in the City of Walnut to the east. Typical CSS habitat is constituted of relatively low-growing drought-deciduous and succulent plant species. These include such species as coastal sagebrush (Artemisia California), several species of sage (Salvia spp.), California buchiolit (eriogonium fasciulata), California encilium (Encilium California), various species of cacti and cholla (Opuntia spp.), and several species of Happlopappi.

References: Final Closure Plan for the Hazardous Waste Management Area of the BKK Landfill, West Covina, prepared by Byron A. Stirrat and Associates, Inc. for BKK Corporation, dated July 21, 1986 [14 volumes]

Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

This project will not affect any native plant species. The project activities involve the delineation of monitoring and reporting requirements and a compliance schedule for the post-closure care of the already existing closed Class I Landfill unit including installation of on-site groundwater monitoring wells. In addition, the proposed project involves the continued operation of the existing LTP unit at the BKK Facility.

As required by Mitigation Measures #2 and #4 (refer to section 1. Earth of this Initial Study), additional requirements will be necessary for the maintenance of the protective vegetative cover and

selection of a re-vegetative cover. Re-vegetation of the landfill cover, as required, will be accomplished with plant species that are compatible with existing native flora and are drought-resistant and protective of the clay cover.

A review of the California Department of Fish and Game, Natural Diversity Data Base (NDDB) found no federal or State -protected plant species. Walnut Forest and California Walnut Woodland are identified to be in proximity of the site in the NDDB but not located within the area of the project site. The project, however, will not have any impact on these forests. The activities associated with the project involve continued monitoring and installation of 15-20 on-site groundwater monitoring wells and the permit renewal of the existing LTP system which requires no modifications, additions or deletions to its existing operation.

References: Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Game, April 29, 1998

Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

5. Animal Life

Description of Environmental Setting:

The project site is located within the City limits of West Covina, Los Angeles County. The Facility, which includes the closed Class I Landfill and LTP units, is surrounded by urban development on three sides, and open land on the fourth. The BKK Facility has been at its current location since early 1963. The surface of the closed Class I Landfill unit is covered by a vegetative cover (as required by the previously approved Closure Plan of 1986), asphalt and buildings.

Undisturbed portions of the BKK Facility have been indicated by the Fish and Wildlife Service in 1997 as having portions of the appropriate habitat---Coastal Scrub and Sage---for the endangered coastal California gnatcatcher (Palioptila California). In 1998, the Fish and Wildlife Service indicated the potential for parts of the 583 acre Facility to support the habitat of the endangered least Bell?s vireo (Vireo belli pustlus), endangered southwestern willow flycatcher (Empidonax tratilli extimus), endangered Quino checkerspot butterfly (Euphydryas edito quino) and other federally listed species. Gnatcatchers are known to occur at Bonelli and Schabarum Regional Parks and at California Polytechnic University in Pomona. Fledgling gnatcatchers are known to disperse up to nine miles from their natal territory.

Despite the fact that there are several interconnected natural hillside areas within the area and Gallester Wilderness Area and Park near the 583 acre Facility, the project site is not in a known migration corridor.

Aside from burrowing rodents, no domesticated nor undomesticated animals are currently known to inhabit the closed Class I Landfill or LTP units based on field observations by DTSC staff and discussions with City of West Covina and BKK personnel. Currently, deer and red-tailed hawks inhabit the neighboring hills. No rare or endangered animal species occur on or near the BKK Facility. No fish habitat is known to exist within several miles of the Facility.

References: Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Game, April 29, 1998

Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

5. Animal Life

May 27, 1997, Gail C. Kobetich, Field Supervisor, U.S. Department of Interior, Fish and Wildlife Service, letter to Mary C. Blevins, U.S. Environmental Protection Agency, regarding Coastal Sage and Scrub Habitat at the BKK Landfill

Notice of Preparation, BKK Final Closure/Postclosure Maintenance Plan, 18-Hole Golf Course, San Jose Hills Business park, City of West Covina, Local Enforcement Agency (LEA), dated June 22, 1998

Analysis of Potential Impacts:

The proposed project activities involve the delineation of monitoring and reporting requirements and a compliance schedule for the post-closure care of the already existing closed Class I landfill which may include installation of additional on-site groundwater monitoring wells and will not affect any native plant species. In addition, the proposed project includes the continued operation of the existing LTP system at the site which does not involve any changes to its existing operation.

A review of the NDDB revealed no federal or State-protected animal species on or near the site. Field investigations conducted by DTSC staff found no domesticated or undomesticated animals, except for burrowing rodents, inhabiting the closed Class I Landfill and LTP units. The proposed project would not result in an impact to animal life.

Reference: Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Game, April 29, 1998

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

6. Land Use

Description of Environmental Setting:

The entire BKK Facility is located within the city limits of the City of West Covina, Los Angeles County. The land use designations for the areas surrounding the project facility site (see Figure 5) are as follows:

North:	R-1, A.D. III	Landfill Buffer/Open Space
	MF-15	Open Space/Vacant
	MF-8, A.D. I	Condominiums
	O-S	Galster Park
	R-1, A.D. V	Single-Family Residential
South:	PCD-1	Single-Family Residential Shopping Center
East:	R-1, A.D. II	Landfill Buffer/Open Space City of Walnut Open Space/Vacant
West:	PCD-1	Azusa Avenue and Single-Family Residential

References: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Ambient Air Sampling Plan, BKK Landfill, West Covina, California, prepared by BKK Corporation, RES Environmental Inc., and ENVIRON Corporation for U.S. EPA, final approved version dated October 7, 1994

Analysis of Potential Impacts:

The proposed project does not alter present or planned land uses including existing zoning or proposed zoning. The existing Facility complies with current local land use designations. The project will have no impacts on land use.

6. Land Use

Reference: June 24, 1998, Steve Samaniego, Environmental Management Director, City of West Covina, Telephone conversation with Jamshid Shahi DTSC, regarding land use compliance.

6. Land Use

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

7. Natural Resources (Workbook; page 25)

Description of Environmental Setting:

The BKK Facility produces methane gas that is used on-site to generate electricity required for the operation of all Facility needs. The Facility also uses water as a supplement to the treated liquids generated from the LTP system which is used for irrigation purposes on site.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

The proposed project activities will not impact the rate or use of any natural resource, contribute to depletion of any natural resources in a substantial way, or hinder the extraction of necessary natural resources, including minerals.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

8. Risk of Upset (Workbook; page 26)

Description of Environmental Setting:

An LTP was installed to collect and treat leachate which is generated by the existing closed Class I landfill (approved for closure in 1986). The LTP is situated in the south central portion of the Facility, just to the east of the closed Class I landfill. A secondary containment wall surrounds the entire plant. The containment is capable of holding 100 percent of the largest tank plus 24 hours of rainfall from a 25-year storm. A tertiary containment system, the upper drainage basin, will hold more than the entire LTP liquid volume.

The LTP contains numerous controls and safety features to reduce the risk of upset. The entire gas collection system operates under vacuum instead of positive pressure. The landfill post-closure requires collection and burning of landfill gases containing approximately 50 percent methane. Conditions of the draft post-closure permit require regular monitoring of the gas collection system through a series of periodic checks of gas stream parameters such as gas flow, temperature, gas composition, percent methane, oxygen, and carbon dioxide. The gas extraction wells are constructed with an intermediate section of flexible coupling to prevent pipe breakage or separation due to expansion and contraction of the aboveground collection system and landfill settlement or subsidence. The main header system is designed to allow isolation of any individual gas header in the event of a break, while continuing to transmit gas to the flares from other gas headers. All closed tanks are fitted with pressure relief valves to prevent tank rupture.

The current operations require a Contingency Plan for all potential types of upsets that could occur at the site, including earthquake, fire, or explosion.

References: Final Closure Plan for the Hazardous Waste Management Area of the BKK Landfill, West Covina, prepared by Byron A. Stirrat and Associates, Inc. for BKK Corporation, dated July 21, 1986 [14 volumes]

Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

The operations plan (which is included by reference as part of the project) for the LTP contains numerous controls and safety features to reduce the risk of upset, including pressure relief valves which

are installed on all closed tanks to prevent tank rupture and release to the secondary containment of leachate, condensate, and contaminated ground water or release to the environment of gases such as methane or vinyl chloride.

A secondary containment wall surrounds the entire LTP, capable of holding 100 percent of the largest LTP tank liquid volume plus 24 hours of rainfall from a 25-year storm. A tertiary containment system (the upper drainage basin) will hold more than the entire liquid volume of the LTP system.

The proposed project includes sufficient permit conditions and control features for the gas collection system necessary to reduce the potential risk of upset impacts to a less than significant level.

The Class I landfill post-closure care requires collection and burning of landfill gas-containing methane which may be highly explosive in certain concentrations. However, the entire gas collection system operates under negative pressure (vacuum) instead of positive pressure. Therefore, the opportunity for explosion is reduced because methane does not escape from typical breaks in the gas collection system. The flammability limits of methane in air is 5-15% by volume but an ignition source must be present and the negative pressure must shifted to positive pressure for release to air. It takes about 24 hours for void gas volumes within the extraction wells to reach positive pressure. Gas stream parameters, such as oxygen and temperature, are monitored regularly to further reduce the risk of an upset in the gas collection system. Improper oxygen and temperature levels might lead to inadequate sub-surface temperature suppression, which could result in increased emissions. However, the regular monitoring of the gas stream parameters will reduce the risk of upset to a less than significant impact level.

Another potential upset condition exists when a break in the pipeline(s) may result in fire or explosion if an ignition source is available. However, the monitoring and safety features which have been incorporated in the design of the LTP system, as discussed earlier, provide for flexible coupling and, thus reduce the risk for upset to a less than significant level.

The operation plan contains a Contingency Plan including a Health and Safety Plan addressing the potential upsets which could occur at the site, including earthquake, fire or explosion.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Findings:

8. Risk of Upset (Workbook; page 26)

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
□	□	☒	□

9. Transportation/Circulation (Workbook; page 29)

Description of Environmental Setting:

The proposed project is the approval of a Hazardous Waste Facility Post-closure Permit which includes the issuance of a post-closure care conditions for the closed Class I landfill and a renewal of the expired Permit to continue to operate the existing LTP.

The closed Class I landfill no longer accepts any wastes from off-site sources. Vehicles arriving at and operated at the site are limited to employees and workers. Less than 100 employee and worker vehicles enter and exit the facility site on a daily basis. As a closed Class I landfill facility, no commodities (wastes) are shipped on or off-site by truck, rail or plane.

Reference: June 23, 1998, Christopher Hansen, BKK Corporation, Telephone conversation with Jamshid Shahi DTSC, regarding vehicles at the BKK Facility

Analysis of Potential Impacts:

The Post-closure Permit may require that additional on-site groundwater monitoring wells be installed. Vehicles necessary for implementation of this condition of the Post-closure Permit will be handled by BKK vehicles which are already located at the Facility and, thus, will have no impact on surrounding traffic circulation or change the level of service designated for surrounding roads an/or intersections near the project. These vehicles will operate on existing internal roads and access ways to install any required wells.

Reference: Resource Conservation and Recovery Act Facility Investigation-Groundwater, BKK Landfill, West Covina, California, prepared by the Janes Network for BKK Corporation, dated October 31, 1997 [6 Volumes]

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

10. Public Services (Workbook; page 31)

Description of Environmental Setting:

The proposed project is the approval of a Permit which includes the issuance of a post-closure care conditions and a renewal of the Permit to continue operating the existing LTP. As required of its approved operation plan, the project proponent's operations plan includes a Contingency Plan and Health and Safety Plan.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

The project would not require additional fire or police protection over and above the existing use requirements. The proposed project would not require additional schools, additional maintenance of public facilities or additional governmental services. The proposed project would not have an impact on public services beyond that which is already existing.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

11. Energy (Workbook; page 32)

Description of Environmental Setting:

The existing BKK Facility produces methane gas that is used on-site to generate electricity required for the operation of all facility needs.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

The proposed project will not result in an increase in the rate of use of energy. The maintenance and operation of the closed Class I landfill requires the use of electrical energy. However, since the landfill produces methane gas that is used on-site to generate electricity, there is no need or demand for other sources of power.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

12. Utilities (Workbook; page 32)

Description of Environmental Setting:

The existing BKK Facility produces methane gas that is used on-site to generate electricity required for the operation of all facility needs. An LTP system is in operation to treat the leachate generated by the closed Class I landfill.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

The proposed project will not result in a significant use or demand for fuel or energy on an intermittent or long term basis; increase consumption of electricity; or result in the need for significant alteration to any existing utilities for water, natural gas, electric, and sewer. The maintenance and operation of the closed Class I landfill requires the use of electrical energy. However, since the landfill produces methane gas that is used onsite to generate electricity, there is no need or demand for other external sources of power. Further, the rate of use of water from external sources for irrigation is expected to remain at its insignificant levels as it has been for the past 10.5 years of post-closure care.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

13. Noise (Workbook; page 32)

Description of Environmental Setting:

The proposed project is the approval of a Hazardous Waste Facility Post-closure Permit which includes: the issuance of post-closure care conditions detailing monitoring and reporting requirements and compliance schedule; and, a permit renewal to continue operating the existing LTP. The Facility site encompasses some 583 acres in the City of West Covina. The existing LTP operates 24 hours daily and is located on .55 acres within the confines of the BKK Facility site. Local residences are located as close as approximately 700 feet from the operational pumps and generators.

Reference: Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

The proposed project will not result in any long term noise increase. The proposed project may create some temporary adverse noise impact for on-site workers operating the drill rig during the installation of any additional on-site groundwater monitoring wells. Drilling will be intermittent throughout the day and during daylight hours only. Short-term noise resulting from the diesel engine of the drill rig might reach a maximum of 90 dBA at a distance of one meter from the engine. The Facility?s Health and Safety Plan for drilling investigation (Exhibit B of the RFI Workplan, Phase IV) indicates that not only would standard ear protection be provided for workers adjacent to the drill rig, but that muffling devices such as sound blankets would be utilized whenever residence were adjacent to the borehole.

Any additional groundwater monitoring wells required by the Post-closure Permit activities will be located at least 200 feet away from the surrounding community and will have a less than significant impact on local residences because the calculated noise at this distance is estimated to be 64 dBA. The Noise Element of the City of West Covina?s General Plan considers noise levels of up to 65 dBA for periods of not more than 8 hours in a 24 hour period to be normally acceptable for residential properties.

As a condition of the Permit, a Health and Safety Plan (HSP) requires adherence to Cal/OSHA Occupational Noise Exposure Regulations and the Noise Element of the City of West Covina General Plan. Adherence to the provisions of the HSP, city noise standard requirements would reduce the potential for noise impacts to a less than significant level.

13. Noise (Workbook; page 32)

13. Noise (Workbook; page 32)

References: RCRA Facility Investigation Workplan for Additional Off-Site Hydrogeologic Studies (Phase IV), BKK Landfill, West Covina, California, prepared by ENVIRON Corporation, dated August 26, 1993.

Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997.

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☒	☐

14. Public Health and Safety (Workbook; page 34)

Description of Environmental Setting:

Approval of the Post-closure Permit requires BKK to continue operation, maintenance and inspection of the interim corrective measures currently in place at BKK. The purpose of these corrective measures is to retard further movement of contaminants into ground water and remediate leachate and contaminated groundwater, control emissions of contaminants from landfill gas into the air, and control the migration of landfill gases through subsurface soils.

The design of the closed Class I landfill is such that the three decks covering the landfill are uniformly graded so that street flow drains towards inlet structures which carry flow to retention basins designed to accommodate the 100-year storm run-off.

The closed Class I landfill and the LTP are subject to SCAQMD and LARWQCB permits that are designed to protect human health and the environment. Included in BKK?s post-closure Operation Plan is a contingency plan, as required by 22 CCR Division 4.5, Chapter 14, Article 4, that addresses measures to be implemented in the event of upset conditions.

References: Rule 1150.1 Compliance Plan for BKK Landfill Located at 2210 Azusa Ave., West Covina, California [Application 139439], approved by the South Coast Air Quality Monitoring District on July 11, 1994

Order 87-38, Waste Discharge Requirements for BKK Corporation, Sanitary Landfill (BKK Leachate Treatment Plant), File No. 86-76

Analysis of Potential Impacts:

The proposed project, as mentioned in the Air section of this Initial Study , has the potential for significant vinyl chloride air emission impacts with the current monitoring stations for landfill gas which do not allow for a comprehensive monitoring of vinyl chloride gas. In order to ensure that the health and safety of the surrounding community continues to be protected, Mitigation Measure #1 will be required to enhance the monitoring capabilities by establishing additional vinyl chloride air emissions monitoring stations and requiring scheduled reporting (refer to Mitigation Measure #1 detailed in Section 2. Air of this Initial Study).

The proposed project could result in potentially significant impacts to the public safety of surrounding residences. The proposed project requires, in part, the monitoring and reporting of the

accumulations in the debris basins. DTSC has recorded incidences of sediment deposition and run-off on neighborhood streets which could result in potential adverse impacts to public safety unless mitigated.

To mitigate this potential for adverse impact, the following mitigation measure will be implemented:

Mitigation Measure #3: Within one hundred twenty (120) calendar days after the effective date of the Permit, the proponent shall clean and monitor accumulations in debris basins monthly or more often as determined by DTSC to preclude further episodes of run-off and sediment deposition on neighboring streets. The proponent shall submit reports of the cleanup and monitoring which shall be submitted per Part V.D of the Permit.

References: Rule 1150.1 Compliance Plan for BKK Landfill Located at 2210 Azusa Ave., West Covina, California [Application 139439], approved by the South Coast Air Quality Monitoring District on July 11, 1994

Order 87-38, Waste Discharge Requirements for BKK Corporation, Sanitary Landfill (BKK Leachate Treatment Plant), File No. 86-76

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☒	☐	☐

15. Aesthetics (Workbook; page 38)

Description of Environmental Setting:

The entire BKK Facility is located within the city limits of West Covina, Los Angeles, County. The facility has been at its current location since early 1963. Most of the Facility grounds have already been covered by buildings, landfill cover or asphalt. Three decks covering the closed Class I landfill are uniformly graded and except for buildings, asphalted parking areas and roads, the majority of the landfill is covered by a vegetative cover to reduce effects of erosion and was required as a condition of the approved Closure Plan.

References: Final Closure Plan for the Hazardous Waste Management Area of the BKK Landfill, West Covina, prepared by Byron A. Stirrat and Associates, Inc. for BKK Corporation, dated July 21, 1986 [14 volumes]

Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Analysis of Potential Impacts:

The proposed project provides for the additional maintenance and monitoring of the vegetative cover. These requirements of the proponent ensure that the vegetative cover required by the approved Closure Plan is adequately maintained. In addition, as stated in the section 1. Earth of this Initial Study, Mitigation Measures #2 and #4 will be implemented to enhance the maintenance and monitoring of the vegetative cover which will help to improve the overall aesthetics of the Facility site. As such, the proposed project will have a less than significant aesthetics impact.

References: Final Closure Plan for the Hazardous Waste Management Area of the BKK Landfill, West Covina, prepared by Byron A. Stirrat and Associates, Inc. for BKK Corporation, dated July 21, 1986 [14 volumes]

Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

Findings:

15. Aesthetics (Workbook; page 38)

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
□	□	☒	□

16. Cultural/ Paleontological Resources (Workbook; page 39)

Description of Environmental Setting:

The entire BKK Facility is located within the city limits of West Covina, Los Angeles, County. The Facility has been at its current location since early 1963. Most of the Facility grounds have already been covered by buildings, landfill cover or asphalt.

Reference: Resource Conservation and Recovery Act Facility Investigation-Groundwater, BKK Landfill, West Covina, California, prepared by the Janes Network for BKK Corporation, dated October 31, 1997 [6 Volumes]

Analysis of Potential Impacts:

The proposed project is for the approval of a Hazardous Waste Facility Post-closure Permit. The proposed project may involve the drilling of additional groundwater monitoring wells on-site at this closed Class I landfill. Any on-site disturbances as a consequence of this project will affect only those areas of the fill material where no cultural or paleontological resources could exist. The proposed project will have no impact on cultural or paleontological resources.

Reference: Resource Conservation and Recovery Act Facility Investigation-Groundwater, BKK Landfill, West Covina, California, prepared by the Janes Network for BKK Corporation, dated October 31, 1997 [6 Volumes]

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

17. Cumulative Effects (Workbook; page 42)

Description of Environmental Setting:

The City of West Covina has previously prepared and public noticed a Negative Declaration with mitigation measures involving the subdivision of the 583-acre BKK Facility into a total of three separate parcels. That project was "proposed for planning purposes only." Mitigation measures for that project require: 1) that deed restrictions be recorded against the entire property to provide continued access to the entire site by landfill regulatory agencies, and to provide other environmental protections to ensure the continued proper maintenance of the former landfills; and, 2) ensure that any proceeds from the sale off Parcels 1 and /or 2 will be applied toward required financial assurances for remedial activities undertaken in relation to the closed Class I landfill.

No other hazardous waste facilities are located in the surrounding area.

Reference: City of West Covina, Negative Declaration of Environmental Impact; Recirculated Negative Declaration of Environmental Impact for Tentative Parcel Map No. 24585; March 1998

Analysis of Potential Impacts:

The proposed project is the approval of a Hazardous Waste Facility Post-closure Permit for the closed BKK Class I Landfill and permit renewal for continued operation of the existing LTP. The LTP system continues to treat leachate, landfill gas condensate, and contaminated ground water. There are no other hazardous waste facilities in the area.

The proposed project will allow the continued operation of the effective LTP system for treatment of leachate, landfill gas condensate, and contaminated ground water from the closed Class I landfill. No new technologies are associated with the proposed project.

The proposed project will not alter the location, distribution, density, or growth rate of the human population of the area. The proposed project will not affect existing housing, public services, public infrastructure, or create a demand for additional housing.

Although the project proponent is required to conduct Corrective Action at the BKK Facility pursuant to Health and Safety Code section 25200.10, USEPA remains the lead agency for Corrective Action which is being carried out under the Consent Order issued pursuant to Section 3008(h) of RCRA. Among other tasks, the Consent Order requires the proponent to determine the nature and

17. Cumulative Effects (Workbook; page 42)

extent of contamination of air, soil and water at the Facility and contiguous areas; to identify existing potential migration pathways; to establish a comprehensive on-going monitoring program to detect future releases of contaminants from the Facility; and to perform a Corrective Measures Study. At such time that it is determined that the project proponent has complied with the terms of the RCRA Section 3008(h) Order and, after selection of the remedy, USEPA will transfer the responsibility for Corrective Measures Implementation to DTSC. Corrective Measures Implementation will take place as part of a permit modification to the Hazardous Waste Facility and Post-closure Permit. A separate CEQA determination of potential environmental impacts will be made based on the permit modification.

The proposed project activities considered in light of the proposed Negative Declaration prepared by the City of West Covina for the subdivision of the BKK Facility into 3 parcels would not result in an overall significant cumulative impact on the environment provided the mitigation measures proposed in the Permit are fully implemented.

References: Administrative Order on Consent, In the Matter of BKK Corporation, USEPA Docket No. RCRA-09-89-0019, Proceeding under Section 3008(h) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6928(h) (U.S. Environmental Protection Agency, March 31, 1989)

City of West Covina, Negative Declaration of Environmental Impact; Recirculated Negative Declaration of Environmental Impact for Tentative Parcel Map No. 24585; March 1998

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☒	☐

18. Population/Housing/Recreation (Workbook; page 43)

Description of Environmental Setting:

The BKK Facility site is currently under land use deed notification. The project proponent has submitted an application to the City of West Covina for subdividing the entire Facility into 3 parcels including deed restriction relating to the closed Class I landfill. A Negative Declaration has been public noticed as of the preparation of this Initial Study.

Reference: City of West Covina, Negative Declaration of Environmental Impact; Recirculated Negative Declaration of Environmental Impact for Tentative Parcel Map No. 24585; March 1998

Analysis of Potential Impacts:

The proposed project will have no impacts on population/housing/recreation beyond that which is already in existence. The proposed project will not alter the location, distribution, density or growth rate of the human population. The proposed project will have no affect on existing housing, or create a demand for additional housing. The proposed project will not impact the quality or quantity of existing recreational opportunities. The proposed project encompasses an existing closed Class I landfill which will remain in its current location under the current land use restriction.

Reference: City of West Covina, Negative Declaration of Environmental Impact; Recirculated Negative Declaration of Environmental Impact for Tentative Parcel Map No. 24585; March 1998

Findings:

Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
☐	☐	☐	☒

19. Mandatory Findings of Significance (Workbook; page 44)

		Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
a)	*Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*				*X*
b)	*Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?*				*X*
c)	*Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)*				*X*
d)	*Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*		*X*		

V. DETERMINATION OF SIGNIFICANT EFFECT

On the basis of this Initial Study:

□ **I find that the proposed project COULD NOT have a significant effect on the environment. A NEGATIVE DECLARATION will be prepared.**

☒ I find that although the proposed project COULD HAVE a significant effect on the environment, mitigation measures have been added to the project which would reduce these effects to less than significant levels. A MITIGATED NEGATIVE DECLARATION will be prepared.

□ I find that the proposed project COULD HAVE a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

Jamshid G. Shahi	Hazardous Substances Scientist, DTSC
Name of Preparer	Title
//original signed by//	11/15/99
Signature of Preparer	Date

ATTACHMENT A

INITIAL STUDY
REFERENCE LIST
for
BKK Landfill

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1. Resource Conservation and Recovery Act Facility Investigation-Groundwater, BKK Landfill, West Covina, California, prepared by the Janes Network for BKK Corporation, dated October 31, 1997 [6 Volumes]

2. Final Closure Plan for the Hazardous Waste Management Area of the BKK Landfill, West Covina, prepared by Byron A. Stirrat and Associates, Inc. for BKK Corporation, dated July 21, 1986 [14 volumes]

3. Hazardous Waste Facility Permit, BKK Landfill Leachate Treatment Plant [EPA ID # CAD 067786749], dated June 30, 1987

4. Report, Slope Stability Analyses BKK Landfill, West Covina, California, by Dames and Moore for BKK Corporation, dated May 14, 1991

5. BKK Corporation, Rule 1150.1 Quarterly Monitoring Report Class I-Class III (October-November-December 1997), prepared by RES Environmental Inc., submitted to the South Coast Air Quality District on February 13, 1998

6. Rule 1150.1 Compliance Plan for BKK Landfill Located at 2210 Azusa Ave., West Covina, California [Application 139439], approved by the South Coast Air Quality Monitoring District on July 11, 1994

7. Ambient Air Sampling Plan, BKK Landfill, West Covina, California, prepared by BKK Corporation, RES Environmental Inc., and ENVIRON Corporation for U.S. EPA, final approved version dated October 7, 1994

8. Permit Application for Operation of the Leachate Treatment Plant and Post-closure Care of the Class I Landfill at BKK Landfill, West Covina, California, revised June 30, 1997

9. Department of Fish and Game - Designated Endangered, Threatened, or Rare Plant and Natural Diversity Database

10. June 24, 1998, Steve Samaniego, Environmental Management Director, City of West Covina, Telephone conversation with Jamshid Shahi DTSC, regarding land use compliance

11. June 23, 1998, Christopher Hansen, BKK Corporation, Telephone conversation with Jamshid Shahi DTSC, regarding vehicles at the BKK Facility

12. May 27, 1997, Gail C. Kobetich, Field Supervisor, U.S. Department of Interior, Fish and Wildlife Service, letter to Mary C. Blevins, U.S. Environmental Protection Agency, regarding Coastal Sage and Scrub Habitat at the BKK Landfill

13. Notice of Preparation, BKK Final Closure/Postclosure Maintenance Plan, 18-Hole Golf Course, San Jose Hills Business Park, City of West Covina, Local Enforcement Agency (LEA), dated June 22, 1998

14. City of West Covina, Negative Declaration of Environmental Impact; Recirculated Negative Declaration of Environmental Impact for Tentative Parcel Map No. 24585; March 1998

15. Administrative Order on Consent, In the Matter of BKK Corporation, U.S. EPA Docket No. RCRA-09-89-0019, Proceeding under Section 3008(h) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6928(h) (U.S. Environmental Protection Agency, March 31, 1989)

16. Interagency Steering Committee (ISC) Inspection Report for June 26-27, 1996 Inspection of the BKK Landfill, West Covina, California, Prepared by Carmen Santos (USEPA/ISC Chair), May 9, 1997